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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,038	04/01/2004	Hideyuki Shimizu	450100-05008	9280

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EXAMINER

AMIN, JWALANT B

ART UNIT	PAPER NUMBER
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2628

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/816,038

Applicant(s)

SHIMIZU, HIDEYUKI

Examiner

Jwalant Amin

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-5 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.
2. Regarding claims 1-5, the Applicant argues that Sasaki does not teach " ... a special effect device comprising an address signal generating means for generating a readout address signal for said picture signals stored in said frame so that, by rupturing a picture portion within an area at an optional position of said picture, defined by a circle having a radius of an optional size, with the center of the circle as a rupturing point, a folded figure will be obtained which has the circumference of said circle as a topological boundary, wherein said address signal generating means transforms a coordinate system of said picture to a rectangular coordinate system and the rectangular system is then transformed to a polar coordinate system" (see Applicant's remarks, page 10 2nd last paragraph).
3. However the Examiner interprets that:

Sasaki teaches a special effect device (col. 1 lines 10-11; a system producing a special visual effect corresponds to a special effect device) comprising address signal generating means for generating a readout address signal for the picture signals stored in the frame buffer (col. 1 lines 27-31; read-out address transform circuit corresponds to address signal generating means; image memory corresponds to frame buffer; input image data corresponds to picture signals stored in frame buffer).

Sasaki also teaches "page turn-over elect" (Fig. 3, col. 1 lines 63-68, col. 2 lines 1-4; page of a book were turned over corresponds to obtaining a folded figure). Sasaki discloses all of the claimed limitations as stated above, except that Sasaki does not explicitly teach the special effect device ruptures a picture portion within an area at an optional position of said picture, defined by a circle having a radius of an optional size, with the center of the circle as a rupturing point, a folded figure will be obtained which has the circumference of said circle as a topological boundary. However, the examiner takes an official notice of the fact that when a bullet is fired on a paper or a metal for producing a rupturing effect, it could create a hole and generate a folded figure with many curls around the periphery of the hole. Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to use the "page turn-over effect" method of Sasaki and apply it to calculate the curls of the folded figure obtained by rupturing a picture because the calculations for obtaining the "page turn-over effect" could be easily applied to other special effect to obtain a curled or folded image.

Although Sasaki discloses all of the claimed limitations as stated above, Sasaki does not explicitly teach that the address signal generating means transforms a coordinate system of said picture to a rectangular coordinate system and the rectangular system is then transformed to a polar coordinate system. However, Shiraishi teaches a read address generator that inputs the sequential read address of the image specified in orthogonal coordinates (X,Y) and the coordinate transformation circuit that transforms the orthogonal coordinates of the read address into polar coordinates (r, θ) (col. 3 lines 15-20, col. 4 lines 50-53; orthogonal coordinates

corresponds to rectangular coordinates; sequential read address specified in orthogonal coordinates corresponds to transforming coordinate system of said picture to a rectangular coordinate system). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to represent the picture in a polar coordinate system because the mirror processing in the polar coordinates and the mirror processing in orthogonal coordinates can be synthesized such that a transformed image that looks as if it were looked through a kaleidoscope is obtained (col. 3 lines 9-13).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. (US Patent No. 4,860,217; hereinafter referred to as Sasaki), and further in view of Shiraishi et al. (US 6,091,423; hereinafter referred to as Shiraishi).

6. Regarding claim 1, Sasaki teaches a special effect device (col. 1 lines 10-11; a system producing a special visual effect corresponds to a special effect device) in which picture signals are read out from a frame buffer based on an address signal (col. 1 lines 16-23; digital image signals corresponds to picture signals; image memory corresponds to frame buffer; address locations generated within an input image memory corresponds

Art Unit: 2628

to address signals) to impart a desired special effect to a picture corresponding to the picture signals read out from said frame buffer (col. 1 lines 23-26; having a special effect corresponds to impart a desired special effect; image derived from input image data corresponds to picture signals read out from said frame buffer), said special effect device comprising address signal generating means for generating a readout address signal for the picture signals stored in the frame buffer (col. 1 lines 27-31; read-out address transform circuit corresponds to address signal generating means; image memory corresponds to frame buffer; input image data corresponds to picture signals stored in frame buffer).

Sasaki also teaches "page turn-over elect" (Fig. 3, col. 1 lines 63-68, col. 2 lines 1-4; page of a book were turned over corresponds to obtaining a folded figure). Sasaki discloses all of the claimed limitations as stated above, except that Sasaki does not explicitly teach the special effect device ruptures a picture portion within an area at an optional position of said picture, defined by a circle having a radius of an optional size, with the center of the circle as a rupturing point, a folded figure will be obtained which has the circumference of said circle as a topological boundary. However, the examiner takes an official notice of the fact that when a bullet is fired on a paper or a metal for producing a rupturing effect, it could create a hole and generate a folded figure with many curls around the periphery of the hole. Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to use the "page turn-over effect" method of Sasaki and apply it to calculate the curls of the folded figure obtained

by rupturing a picture because the calculations for obtaining the "page turn-over effect" could be easily applied to other special effect to obtain a curled or folded image.

Although Sasaki discloses all of the claimed limitations as stated above, Sasaki does not explicitly teach that the address signal generating means transforms a coordinate system of said picture to a rectangular coordinate system and the rectangular system is then transformed to a polar coordinate system. However, Shiraishi teaches a read address generator that inputs the sequential read address of the image specified in orthogonal coordinates (X,Y) and the coordinate transformation circuit that transforms the orthogonal coordinates of the read address into polar coordinates (r,Θ) (col. 3 lines 15-20, col. 4 lines 50-53; orthogonal coordinates corresponds to rectangular coordinates; sequential read address specified in orthogonal coordinates corresponds to transforming coordinate system of said picture to a rectangular coordinate system). Therefore, it would have been obvious to one of ordinary skill in the art at the time of present invention to represent the picture in a polar coordinate system because the mirror processing in the polar coordinates and the mirror processing in orthogonal coordinates can be synthesized such that a transformed image that looks as if it were looked through a kaleidoscope is obtained (col. 3 lines 9-13).

7. Regarding claims 3, 4 and 5, Sasaki teaches an address signal generating device, method and a computer executable program (Abstract, col. 18 lines 63-68; system corresponds to device; a method and system for effecting a transformation of video image on a video screen applicable to a system for producing a special visual

effect corresponds to a method and device for generating an address signal; software arithmetic operation program/software corresponds to a computer executable program). See rejection for claim 1 as stated above, regarding address signal generating means and a folded figure obtained by rupturing a picture portion.

Allowable Subject Matter

8. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2, the prior art fails to show that the function $F(.,.)$ prescribing the shape of the folded figure is represented by the equation:

$$\begin{aligned} F(\theta) = F'(t) &= 4(y_p - y_q)(t - 0.5)^2 + y_q \quad (0.0 \leq t < 0.5) \\ &= 4(y_r - y_q)(t - 0.5)^2 + y_q \quad (0.5 \leq t < 1.0) \end{aligned}$$

References Cited

10. The following references teach a bullet forms a hole in a metal sheet or a paper and a folded figure is obtained due to the rupturing of paper or metal sheet.

- <http://www.dreamstime.com/bazooka-holeinasteelwall-image458612>


- http://www.amazon.com/gp/product/B0002NIIQ8/qid=1141404658/sr=1-13/ref=sr_1_13/002-8108102-7496006?%5Fencoding=UTF8&v=glance&n=15684181
- <http://www.photos.travisswicewood.com/v/Objects-and-Toys/stopsignBulletHole.jpg.html>

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jwalant Amin whose telephone number is 571-272-2455. The examiner can normally be reached on 9:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Zimmerman can be reached on 571-272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.A. 8/10/06


KEE M. TUNG
SUPERVISORY PATENT EXAMINER